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AD-A024 599

SPECIAL DATA COLLECTION SYSTEM (SDCS) EVENT REPORT,  
GREECE, 21 DECEMBER 1975

TELEDYNE GEOTECH

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4 MARCH 1976

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AD A 024599

**SPECIAL DATA COLLECTION SYSTEM EVENT REPORT**  
**Greece, 21 December 1975**

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**March 1976**

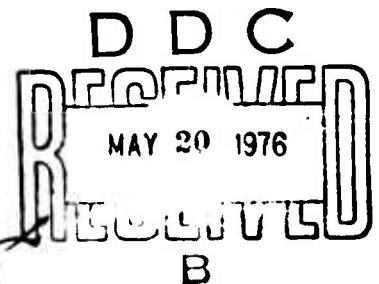
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Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER SDCS-ER-75-78	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) SPECIAL DATA COLLECTION SYSTEM (SDCS) Greece, 21 December 1975		5. TYPE OF REPORT & PERIOD COVERED Technical
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Hill, K. J., Dawkins, M. S., Baumstark, R. R. and Gillispie, M. D.		8. CONTRACT OR GRANT NUMBER(s) F08606-74-C-0013
9. PERFORMING ORGANIZATION NAME AND ADDRESS Teledyne Geotech 314 Montgomery Street Alexandria, Virginia 22314		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS T/4703
11. CONTROLLING OFFICE NAME AND ADDRESS Defense Advanced Research Projects Agency Nuclear Monitoring Research Office 1400 Wilson Blvd.-Arlington, Virginia 22209		12. REPORT DATE 4 March 1976
		13. NUMBER OF PAGES 21
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) VFLA Seismological Center 312 Montgomery Street Alexandria, Virginia 22314		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)  APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)		

## SDCS EVENT REPORT NO. 78

Greece, 21 December 1975

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	"P" Arrival	Origin Time	Lat.	Long.	$m_b$	$M_s$
NORSAR	16:13:00.8	16:08:24	41 N	021 E	5.2	N/A

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become

16:07:54.2	38.7N	021.6E	5.1	4.9
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All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at all SDCS stations, LASA and NORSAR. Horizontal SP channels at all SDCS stations were rotated.

Long-period signals were recorded at all SDCS stations, ALPA and NORSAR. Polarity of the LP radial channel at RK-ON was reversed; to correct this, a mathematical inversion of the LP radial data was performed before the horizontal channels were rotated. Horizontal LP channels at all SDCS stations were rotated. Validity of ALPA and NORSAR long-period vertical beams is questionable and horizontal beams were not included because of program recovery problems. LASA long-period data were not included because of complicated recovery procedures.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short period.

## STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES		ELEVATION METERS	INSTRUMENTATION	
		DEG	MN SECS		SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	65 14	00.0 N 147 44 36.0 W	626	None	31300
CPSO	McMinnville, Tennessee	35 35	41.4 N 085 34 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin, West Virginia	38 32	58.0 N 079 30 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41	19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
HN-ME	Houlton, Maine	46 09	43.0 N 067 59 09.0 W	213	KS36000	KS36000
NORSAR	Kjeller, Norway	60 49	25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50	20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41	41.0 N 134 58 02.0 W	853	18300	SL210 V SL220 H

Note: The orientation of the radial instruments at FN-WV is assumed to be  $16^\circ \pm 5^\circ$  based on empirical data (event recordings). Rotation, where performed, is referenced to this azimuth and may be questionable.

## HYPOCENTER DETERMINATION

INPUT FOR EVENT 21 DEC 75  
 16:08:08.0 40.000N 21.000E 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CAIC	REST		
NAC	16 13 00.8	-0.1	-0.1	23.2	346.6
HN-ME	16 18 23.3	0.4	0.5	63.2	308.8
FK-CN	16 19 32.5	-0.5	-0.4	74.4	323.5
FN-WV	16 19 33.7	0.0	-0.0	74.5	307.0
WH2YK	16 19 59.8	0.2	0.1	79.1	348.5
CFSO	16 20 04.8	-0.4	-0.5	80.1	307.8
IAC	16 20 21.1	0.3	0.3	83.0	326.8

## 67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LCNG.	DEPTH (KM)	SDV	IT	STA
16:07:37.0	38.332N	21.844E	-95. CAIC	0.3	11	7
16:07:54.2	38.673N	21.591E	0. REST	0.4	3	7

CAIC				REST			
	1	.	0		1	.	0
5	.		0	5	.		0
0	1	.	0	0	1	.	0
.	.	.	.	.	.	.	.
0	0	.	0	0	0	.	0
0	.		0	0	.		0
0	.	0		0	.	0	

CHI2 COVERAGE ELLIPSE: 95 PER CENT CONFD..LEVEL, SDV= 1.01  
 MAJOR 102.7KM. MINOR 47.8KM. AZ= 117 AREA= 15432 SQ.KM. REST

95 PERCENT CONFIDENCE ON DEPTH CHISQUARE WITH DISTANC

## DATA SUMMARY

INPUT FOR EVENT 21 DEC 75  
 16:08:08.0 40.000N 21.000E 0KM.

STA.	PHASE	ARRIVAL		INST	FEE	A/Z	MAGNITUDE		DIR	DIST
		TIME					ME	MS		
NAC	EP	16 13	00.8	AE	1.4	335.	5.53			23.2
NAC	LR	16 22	11.0	LPZ	23.0	349.		5.03		23.2
HN-ME	EP	16 18	23.3	SPZ	0.8	50.	5.32			63.2
HN-ME	LQ	16 40	25.0	IFT	27.0	30.				
HN-ME	LR	16 45	37.0	IPZ	19.0	12.		4.00		63.2
FK-CN	EP	16 19	32.5	SPZ	0.9	25.	4.90			74.4
FK-CN	LQ	16 45	27.0	IFT	29.0	121.				
FK-CN	IR	16 52	03.0	IPZ	23.0	338.		5.52		74.4
FN-WV	EP	16 19	33.7	SPZ	0.9	35.	5.04			74.5
FN-WV	LQ	16 45	13.0	IFT	30.0	45.				
FN-WV	LR	16 52	43.0	IPZ	21.0	97.		4.98		74.5
AIFA	LR	16 52	56.0	IPZ	22.0	20.		4.30		76.1
WH2YK	EP	16 19	59.8	SPZ	1.0	14.	4.63			79.1
WH2YK	LQ	16 47	02.0	IFT	28.0	49.				
WH2YK	IR	16 55	21.0	IPZ	23.0	75.		4.89		79.1
CFSC M	EP	16 20	04.8	SPZ	0.9	788.	6.30			80.1
CFSC	LQ	16 49	26.0	IFT	26.0	130.				
CFSC	LR	16 56	50.0	IPZ	19.0	175.		5.27		80.1
IAC M	EP	16 20	21.1	SAB	1.6	504.	6.40			83.0

CRIGIN	LAT.	ICNG.	DEPTH (KM)	MAG	SDV	STA	LP MAG	LP SDV	LP STA
16:07:37.0	38.332N	21.844E	0. CAIC	5.08	0.37	5	4.86	0.5	7
16:07:54.2	38.673N	21.591E	0. REST	5.08	0.35	5	4.86	0.5	7

CFSC NOT USED IN CALC RUN SP AVG. MAG.  
 IAC NOT USED IN CALC RUN SP AVG. MAG.  
 CFSC NOT USED IN REST RUN SP AVG. MAG.  
 IAC NOT USED IN REST RUN SP AVG. MAG.

CPSO and LASA not used in either calculated or restrained SP average magnitude calculations because their magnitudes exceed the SDV parameters of the hypocenter program.



5<

HN-ME 21 DEC 75

SPZ  
56.04 MU



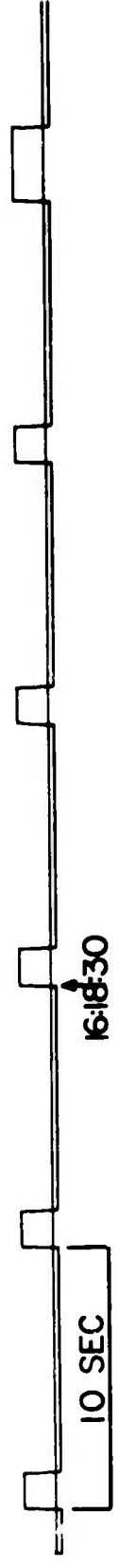
SPR  
34.27 MU



SPT  
32.41 MU



TIME



b<

RK-ON 21 DEC 75

SPZ  
43.14 MU

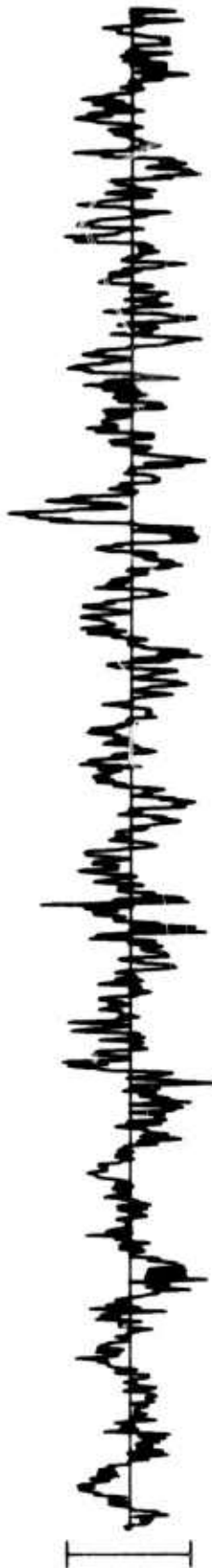
16:19:32.5



SPR  
20.53 MU



SPT  
21.39 MU



TIME

10 SEC

16:19:40



7<

FN-WV 21 DEC 75

16:19:33.7

SPZ  
21.56 MU



SPR  
12.90 MU



SPT  
13.15 MU



TIME



WH2YK 21 DEC 75

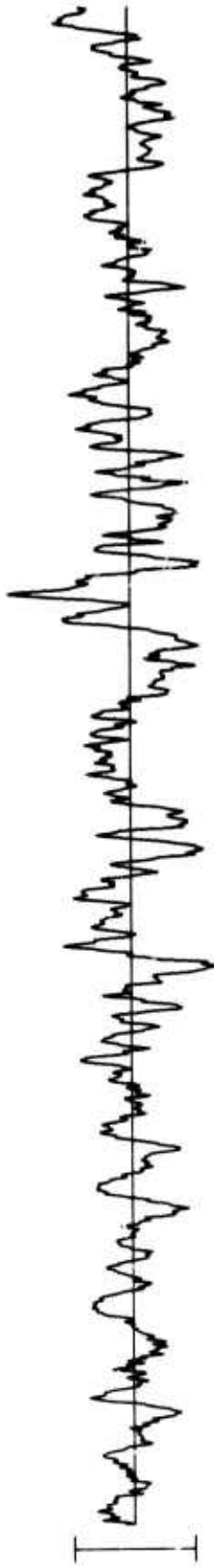
8<

SPZ  
14.32 MU

16:19:59.8



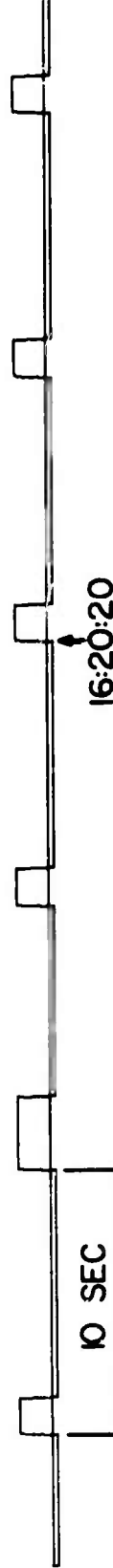
SPR  
12.27 MU



SPT  
7.96 MU



TIME



10 SEC

16:20:20

CPSO 21 DEC 75

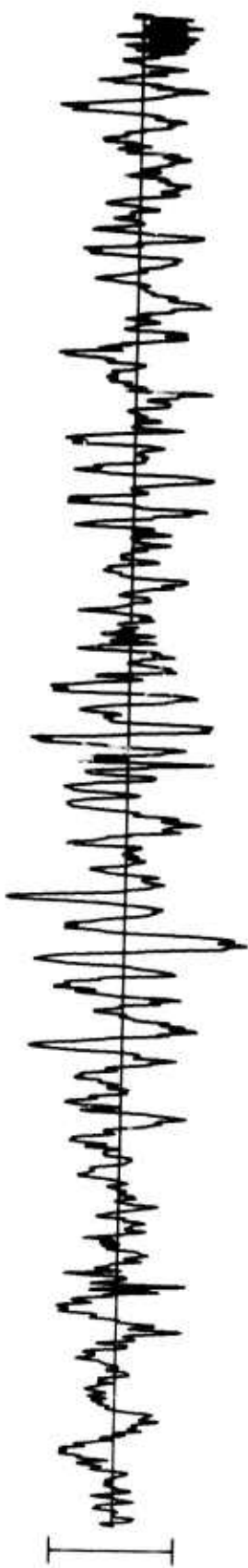
9<

SPZ  
498.85 MU

16:20:04.8



SPR  
103.94 MU



SPT  
81.45 MU



TIME

10 SEC

16:20:20

10<

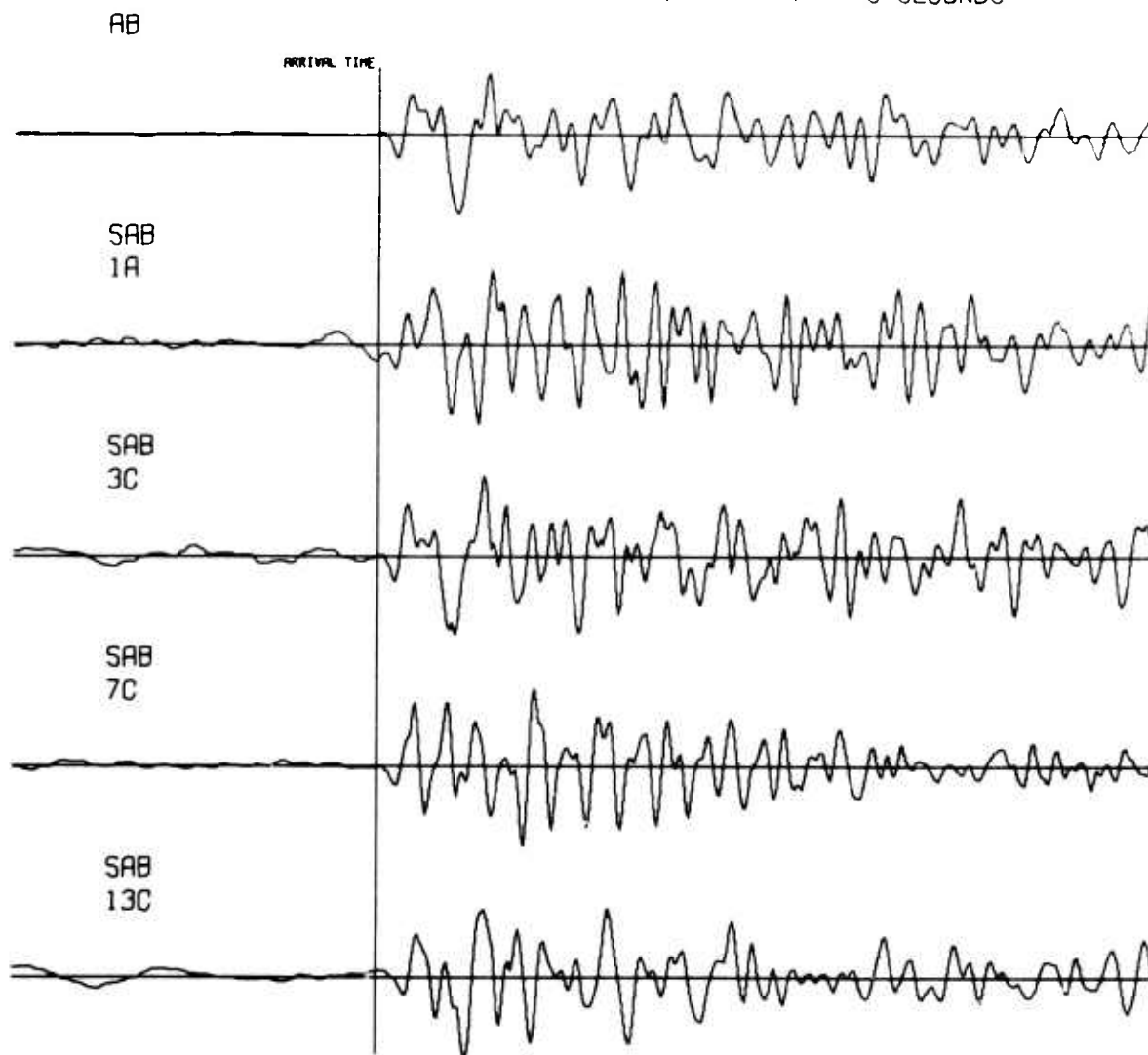
NORSAR EVENT FILE

1975 DEC 21

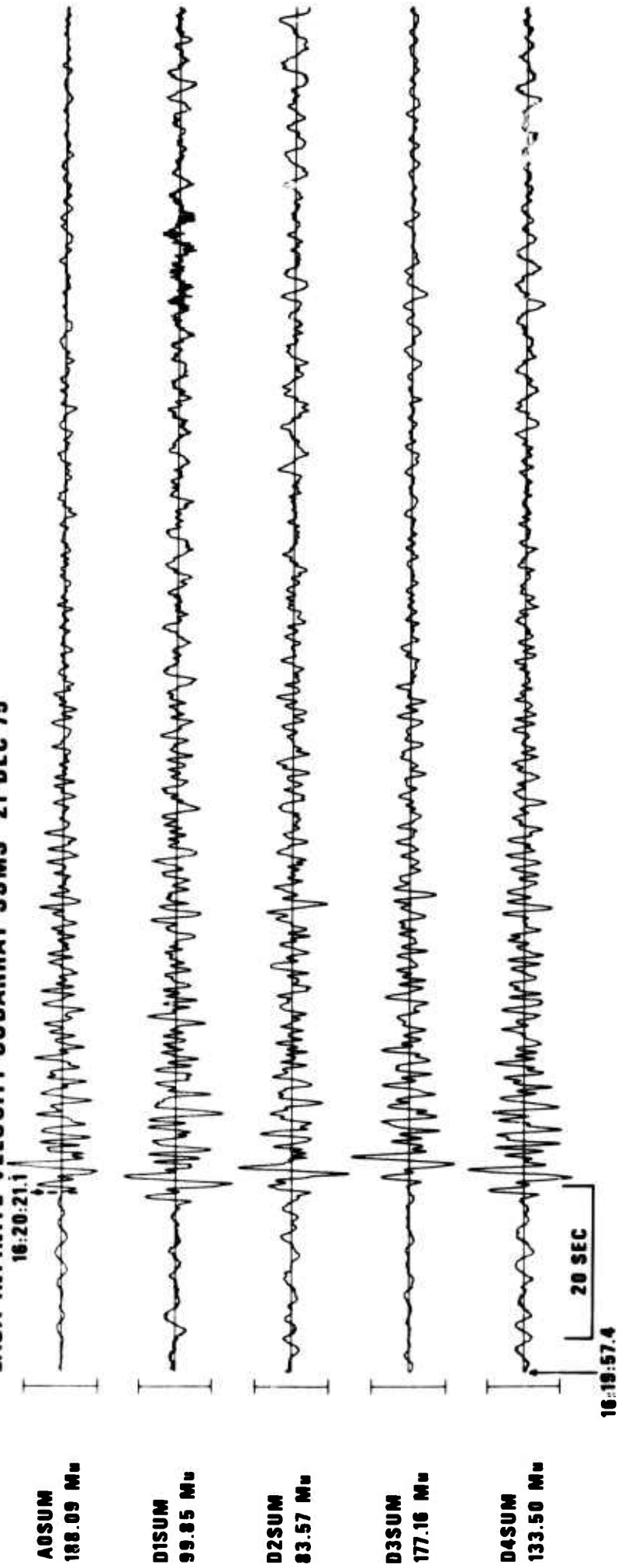
EPX NO. 64590 ARR. 16.13.0.7 41.0N 20.5E 4.6MB 33KM

DIST = 20.7 AZI = 158.9 AMP = 39.2 PER = 1.2

— = 5 SECONDS

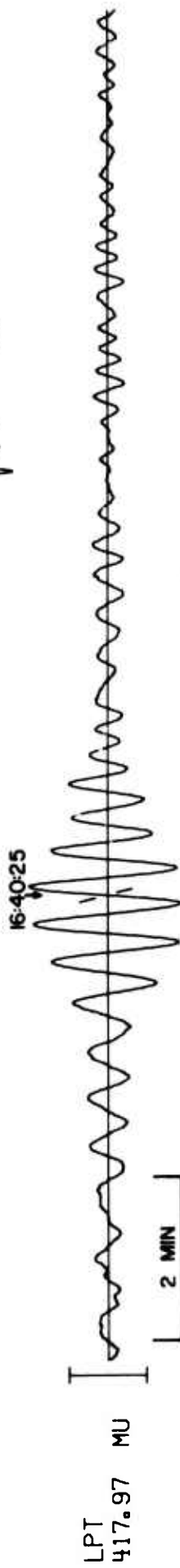
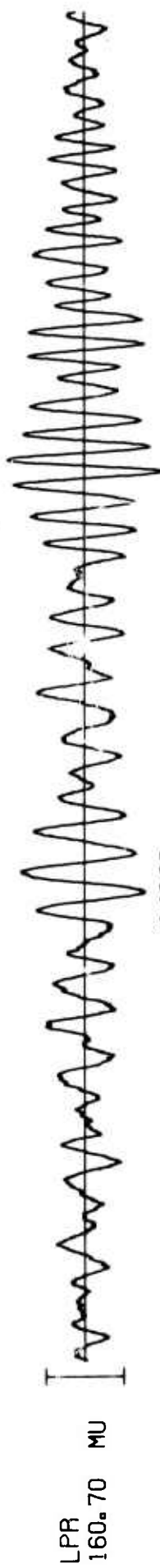


LASA INFINITE VELOCITY SUBARRAY SUMS 21 DEC 75



12<

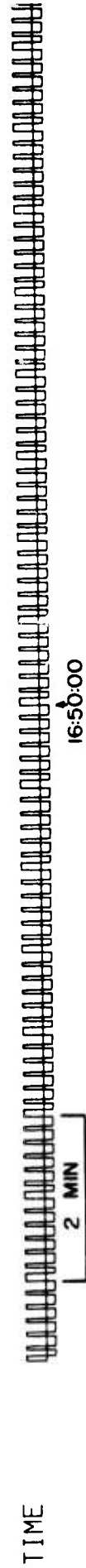
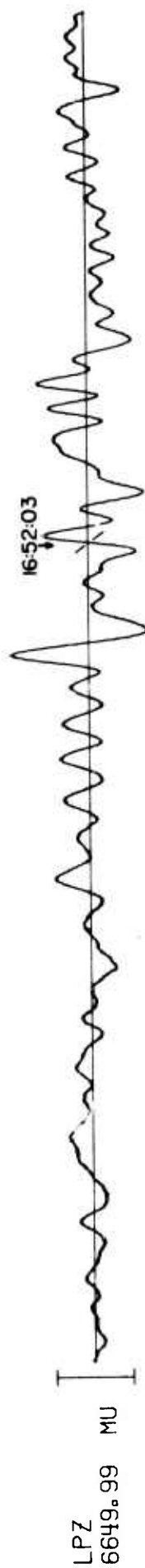
HN-ME 21 DEC 75





13<

RK-ON 21 DEC 75



14<

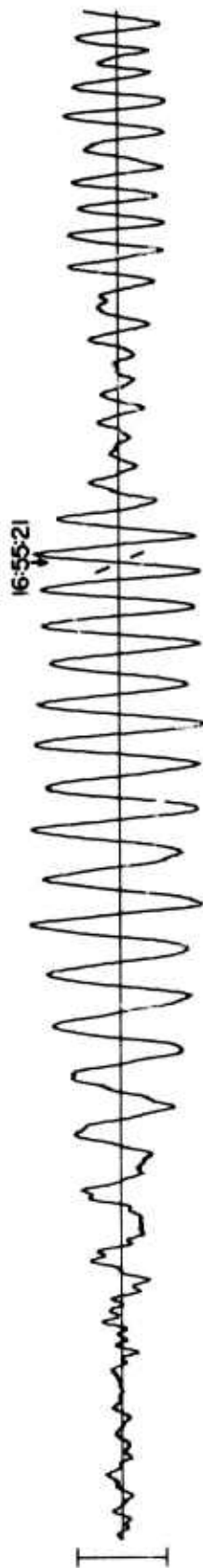
FN-WV 21 DEC 75



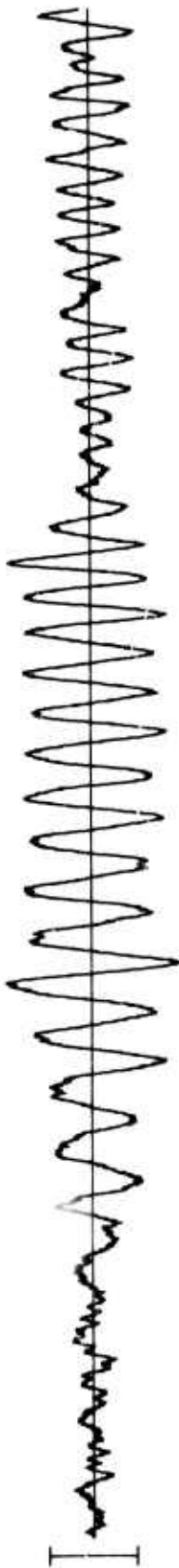
15<

WH2YK 21 DEC 75

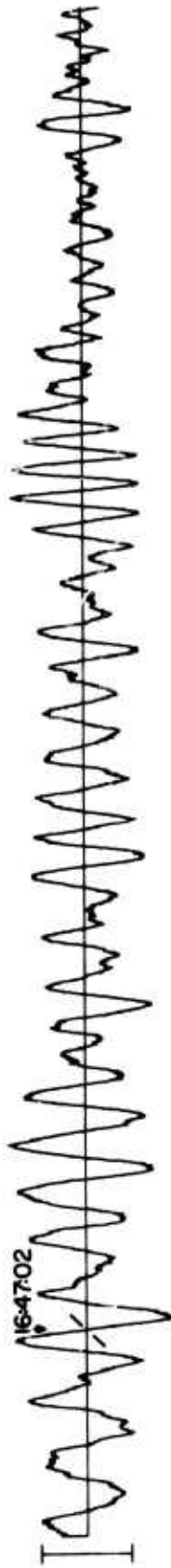
LPZ  
1076.67 MU



LPR  
955.65 MU



LPT  
719.54 MU



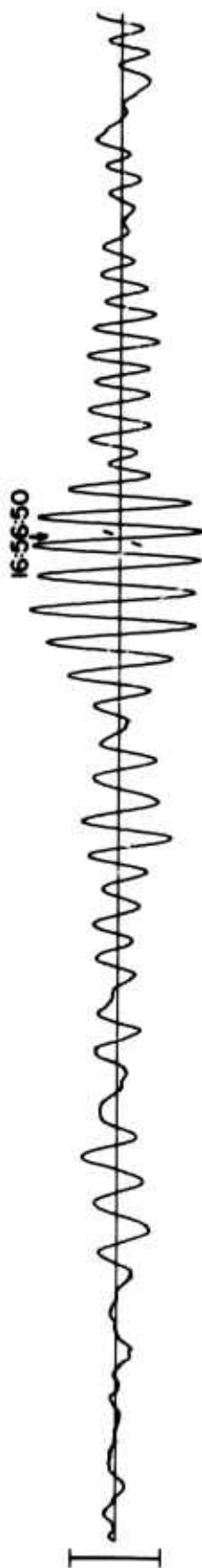
TIME



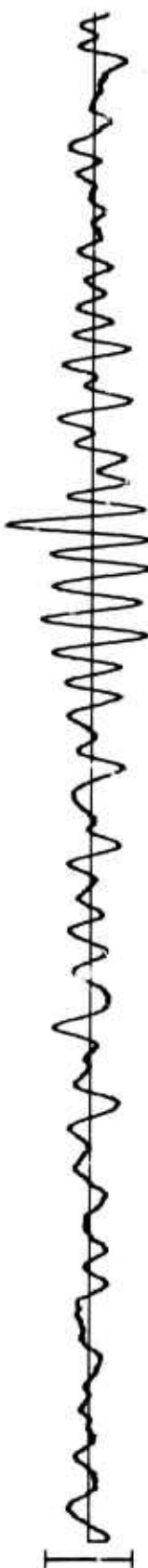
16<

CPS0 21 DEC 75

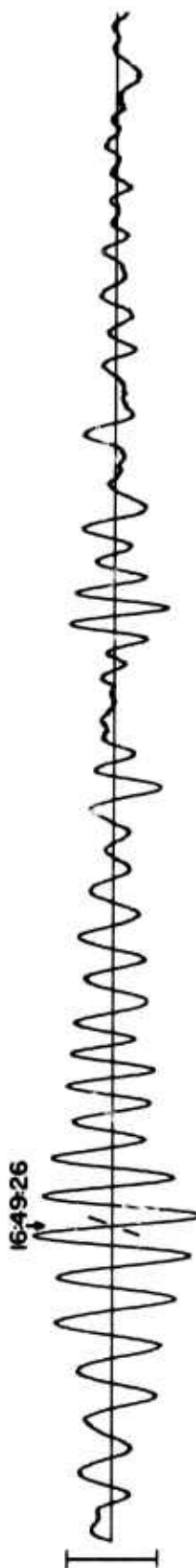
LPZ  
1658.11 MU



LPR  
1731.97 MU



LPT  
1752.61 MU



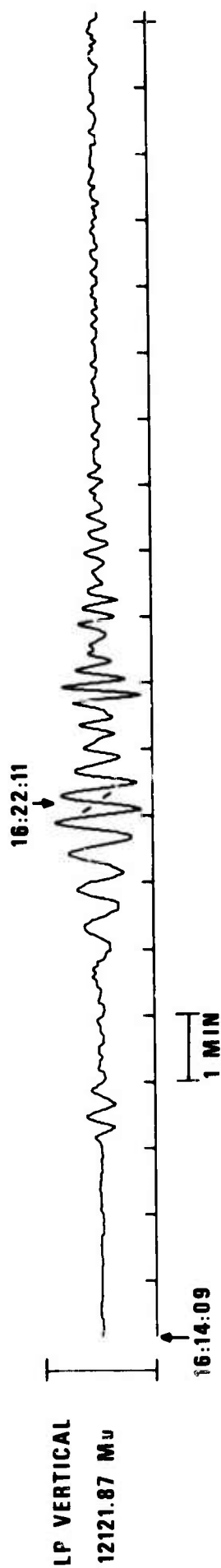
TIME



174

# ARRAY LONG PERIOD VERTICAL BEAMS 21 DEC 75

## NORSAR



## ALPA

